NWS-00329-03.01-12/01/93

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December 1, 1993

Commander
Atlantic Division
Naval Facilities Engineering Command
1510 Gilbert Street (Building N-26)
Norfolk, Virginia 23511-2699

Attn: Mrs. Brenda R. Norton, P.E.
Navy Technical Representative
Code 1822

Re: Contract N62470-89-D-4814
Navy CLEAN, District III
Contract Task Order (CTO) 0209
Meeting Minutes
Naval Weapons Station, Yorktown, Virginia

Dear Mrs. Norton:

Baker Environmental, Inc. (Baker) is pleased to submit two copies of meeting minutes from the September 1993 meeting with US Environmental Protection Agency (USEPA), Virginia Department of Environmental Quality (VDEQ), Naval Weapons Station, LANTDIV, and Baker personnel. This meeting took place at USEPA's Region III headquarters in Philadelphia, PA on September 9 and 10, 1993. The purpose of the meeting was to discuss technical issues related to the Remedial Investigation/Feasibility Study activities to be completed at the Naval Weapons Station.

Please excuse the delay in transmitting these meeting minutes. If you have any questions, please do not hesitate to call me at (412) 269-2010 or Ms. Donna Weidemann at (412) 269-2059.

Sincerely,

BAKER ENVIRONMENTAL, INC.

Lynne T. Srinivasan
Activity Coordinator

LTS/jc
Enclosures

NWS-00329-03.01 - 12/01/93

WPNSTA Yorktown-

Meeting at EPA Region III, Philadelphia, PA on September 9 and 10, 1993, to discuss approaches and issues related to upcoming RI/FS activities at WPNSTA Yorktown. Items to be discussed might include background sampling strategies, analytical methodologies, risk scenarios and potential clean-up goals.

Attendees:

Lynne Srinivasan	Baker Environmental	412-269-2010
Donna Weidemann	Baker Environmental	412-269-2059
Gordon Ruggaber	Baker Environmental	412-269-4679
Brenda Norton	LANTDIV	804-322-4778
Robert Thomson	EPA Region III 3HW71	215-597-1110
Bruce Rundell	EPA Region III 3HW13	215-597-1268
Glenn Markwith	WPNSTA Yorktown	804-887-4775
Jennifer Loftin	WPNSTA Yorktown	804-887-4775
Lisa Ellis	Virginia DEQ-Waste Management	804-225-2906
Nancy Rios	EPA Region III	215-697-6682

The meeting began with a discussion of the Site Management Plan (SMP). Brenda Norton proposed modification of the SMP to cut down on the number of sites being investigated at once. This would be necessary given the assumed funding levels for FY 1994. It would also be more manageable in terms of the number of sites being evaluated simultaneously. Also, Brenda raised concerns about the collection of data in 1994, but waiting to complete the evaluation (RI/FS) until 1995 or 1996, as the SMP is currently set up. Lynne Srinivasan explained how the sites at WPNSTA Yorktown could be ranked using risk based criteria that she is developing for use by the Navy. Ranking 10 of the sites at WPNSTA Yorktown indicated that Site 12 was ranked high (of higher concern) as were Sites 6 and 7. These three sites would be the ones that would be investigated first. Rob Thomson agreed with modifying the SMP and using the ranking criteria. He asked that the new approach be justified in the SMP. Basically he has two concerns: (1) that a Record of Decision (ROD) be scheduled to be completed at a rate of once per year or two years (once the program is under way), and (2) that sites near the perimeter of the Station be evaluated first, where there is potential for off-site migration of constituents. This approach was agreed to by Baker and LANTDIV personnel.

Rob Thomson also had a suggestion for submittal of Work Plans for all the sites. Rather than submitting a complete set of Work Plans (including the Work Plan, Sampling and Analysis Plan [SAP], Quality Assurance Project Plan [QAPP] and the Health and Safety Plan]) for each site or group of sites, Rob asked for a master set of Work Plans. These plans would not contain any specific sampling locations, but would be a basic set of plans that could be used at any of the sites. Specific information related to numbers of samples, types of analyses and sample locations would be placed in a Work Plan Addendum and submitted to the EPA for review when new sites are studied. The master Work Plans would be reviewed about every three years or otherwise updated as required based upon changes in regulations. The master plans would be provided in three ring binders to facilitate page changes. This approach was agreed to by the Baker and LANTDIV personnel.

Rob mentioned that the EPA would like copies of the analytical data produced for the different sites if there is a problem with the data (problems with respect to analytical quality). Rob would then send the data packages to EPA's lab in Annapolis for their review.

The approach for evaluation of Sites 4, 16, and 21 was discussed. The original plan was to complete an RI/FS for the soils only and address the ecological, sediment, surface water and groundwater pathways at a later time. Rob Thomson suggested that we should complete a full RI/FS for those sites rather

than breaking out the soils. The data gathered from confirmation samples (to be collected after the removal actions at those sites) should be evaluated in a data analysis report. The risk screening process was discussed (using EPA Region III's Risk-Based Concentration Levels). Rob Thomson agreed to using this procedure. He said that if the soil concentrations do not exceed ARARs and are below the risk screening criteria, then a Baseline Risk Assessment (BRA) need not be completed.

A discussion of background values commenced. For soil samples, Rob noted that different samples should be collected for different soil types (clay versus sands). Lynne noted that background soil values for many sites would not be pristine samples; many sites at WPNSTA Yorktown had PAHs and possibly other compounds present because of typical industrial site conditions such as railroad tracks. Rob agreed.

The upcoming deliverables for November 1 were discussed. These will be the Master Work Plans, the site-specific Work Plans for Sites 12, 6, and 7, and the plans for background characterization of the York River basin. It was decided and agreed that the site screening areas (SSAs) will be evaluated using Level C analyses and data validation, while the RI/FS sites will be evaluated using Level D analyses and data validation. The procedures for analysis and validation using Level C will be included in the Master Plan QAPP.

After analysis of the background data, a separate report in which the data are evaluated, including a statistical evaluation, will be produced. These data will then be used in subsequent RI/FS reports and can be referenced rather than reevaluated in each report.

Lunch Break - Glenn Markwith, Jennifer Loftin and Lisa Ellis arrived at the meeting just at the lunch break.

Post Lunch - The discussion began with a review of what was decided in the morning. All were in agreement with the revisions to the SMP and the approach of preparing a master set of Work Plans with Work Plan Addendums for individual site investigations.

The status of the burn pad adjacent to Site 4 was discussed. The burn pad will be closed as of December 31, 1993. At issue is whether the area should be included with Site 4 for RI/FS evaluation or should be left as a new site or SSA. It was decided that the burn pad should be included with Site 4 for RI/FS purposes, along with Site 21. Site 16, which originally had been included with Sites 4 and 21 for RI/FS evaluation, should be treated separately. Lisa Ellis noted that the burn pad is a RCRA facility and is part of WPNSTA Yorktown's RCRA permit. She wants Brenda/Jennifer to send a letter to the EPA with a copy to the VADEQ noting the change in status of the burn pad, and that the area will be included for evaluation as part of the FFA. WPNSTA Yorktown may also have to modify Subpart X of their RCRA permit to reflect the change in status of the burn pad.

Items on the agenda were discussed. The need for 200 foot deep monitoring wells at each site was raised. EPA agreed that deep wells are not needed at each site; rather, it is appropriate to put in some deeper wells (middle of the Yorktown Formation) at sites where the upper portion of the Yorktown is contaminated. For the deeper wells, surface casing should be installed through the upper aquifer. The surface casing should be pressure grouted into place. Well diameter could be two or four inches, depending on the possible future use of the well. Wells can be made of PVC with slotted screen.

Well volume for development and purging should be calculated on borehole volume (not casing volume). The EPA also would like sampling with low-flow pumps (such as Grundfos pumps) or bailers. Sampling should not commence until one to two weeks after well development. Both total and dissolved metals should be analyzed from groundwater. The turbidity of the wells should be noted during development and sampling. The EPA noted that they might use dissolved metals data for risk assessment purposes if the wells were turbid. Lisa Ellis noted that VA uses the total metals only for

risk purposes. It needs to be agreed which values will be used (total or dissolved) prior to completing RI/FS evaluations at each site.

Nancy Rios, a toxicologist with EPA Region III, joined the meeting at about 1:30 PM. A discussion of background studies began. Nancy noted that EPA wants a study with a power of 80% (20% chance of error). This is an alpha value of 0.05. Surface soil samples should be collected from 0 to 6 inches (not 0 to 3 inches as requested by ATSDR). EPA wants background data collected on both aquifers present at the site.

Nancy wants the future risk scenario to include residential uses of the property unless the Station places deed restrictions on the sites prior to beginning the BRA process. Discussion of deed restrictions followed, with the group noting that land use restrictions can be made part of the ROD, if appropriate, for the sites.

Groundwater usage and its classification in Virginia was discussed. Depending on the water classification, groundwater may need to be cleaned up to drinking water standards if it is so classified. Lisa Ellis will check on the VA designation of the aquifers in the WPNSTA Yorktown area. Brenda noted that the Round One RI recently completed for the sites at WPNSTA Yorktown was incorrect in its statement that the shallow aquifer is used in the area - the shallow aquifer is not used for drinking water in the area of WPNSTA Yorktown. The source of drinking water is the Newport News Reservoir.

It was discussed and agreed that the approach for evaluation of both risk and feasibility of remedial alternatives should be by site, rather than operable unit (OU), for soils. For groundwater, risk should be evaluated by plume. For surface water and sediments, risk should be evaluated by affected area (not necessarily by site).

The ecological study was discussed. Bob Davis of EPA Region III joined the meeting. Bob is one of EPA's ecological risk assessment staff (phone 215-597-3155). Bob noted the ecological risk assessment should be completed in a phased approach, with evaluation of the chemistry first, habitats next, and as a last resort, tissue analyses. He noted that we should follow EPA guidance.

Lynne asked about the lack of AWQC for the explosive compounds (HMX, RDX) and how this information would be needed at WPNSTA Yorktown for risk evaluation of site conditions. Bob did not know of any data for these compounds, he suggested calling John Paul at Aberdeen Proving Ground (410-671-4567) to see if they had developed any values for these compounds. He also noted that, to his knowledge, EPA had not done a literature search for information on these compounds and suggested that we complete one as part of the RI/FS. He also suggested that someone from his group, John Scully, might be able to do the literature search for us.

When asked about the number of background samples he liked to see for ecological risk assessments, Bob noted that eight was a good number. He recommended using a sample depth of 0 to 6 inches for sediments, and that the 6 to 12 inch depth was really not necessary for ecological risk purposes. In terms of available background values for sediments, Bob noted that the Chesapeake Bay Foundation may have information which we can use. Virginia Institute of Marine Science (VIMS) was also mentioned as a source of information. Bob noted that data from the literature could be used instead of site specific data. This would tend to be more conservative.

The use of a risk screening process for site evaluation was addressed. EPA agreed with the use of Region III's Risk-Based Concentration Level including the use of 0.1 for the Hazard Index (HI). Lynne disagreed with the use of 0.1 for the HI; she noted that the assumptions in the risk screening process are inherently conservative, and the 0.1 HI value was overly conservative. Rob said that if the HI value was close to 0.1 in the risk screening, then EPA would discuss the need to complete further work at that site.

Nancy noted that there is new guidance being developed by EPA for determining what soil concentrations would be allowed that would also be protective of groundwater. The date for release of this guidance document was not known.

Lynne noted that the risk screening procedures would be used for the SSAs and for Site 5. The highest concentration of PCBs at Site 5 was 1.4 ppm out of a total of 21 samples collected at the site. Although this concentration is higher than the 1 ppm level usually used for residential clean-up, EPA agreed that a no action ROD was appropriate for Site 5.

Nancy noted that clean-up levels for PCBs in industrial settings is usually 10 to 25 ppm.

Lynne asked Nancy if they had any information about the metabolites of explosives and the effects on human health and/or the environment. Nancy did not know of any; she suggested contacting Robert Finch at Aberdeen Proving Ground for information they are developing on frog embryos.

The question of Data Quality Objectives (DQOs) was raised with respect to groundwater and surface water analyses. Specifically, what analytical methods would EPA like to use to meet drinking water and/or AWQC. Nancy wants to use the 500 series drinking water analyses to get lower detection limits. Donna noted that EPA had developed methods modified from the CLP procedures that would achieve lower detection limits for several parameters. Nancy mentioned to call EPA's lab in Annapolis and contact Diane Sims for help on methodologies. Diane would also be able to give us information on analytical methods for explosive compounds.

END OF MEETING ON THURSDAY, SEPT. 9, 1993

Meeting continued on Friday September 10, with attendance by the same people as listed for Thursday.

Lynne asked Rob about completing treatability studies at WPNSTA Yorktown. Rob said that EPA wants to see some treatability study(ies) completed before a ROD is signed. LANTDIV, the Activity, and State personnel agreed that the studies should be included, especially for explosive-contaminated soils. Rob noted that composting may be the best method to remove explosive contamination from soils. He mentioned a study at Umatilla Army Depot (Oregon) that may have some information about using cow manure for composting. Lisa Ellis could provide this information to us.

Rob noted that WPNSTA Yorktown may be slated as a base to try innovative technologies as part of a public-private partnership. This would allow for testing of unproven technologies.

The status of community relations was discussed. Basically, the EPA will not be involved in COMREL activities unless requested by the Activity or if there are public meetings planned and EPA presence is required. Terri White is EPA's COMREL person for WPNSTA Yorktown; Jennifer Ebert is the corresponding Virginia COMREL representative.

Significant decisions were reviewed before the close of the meeting. These items are as follows:

- EPA agreed with using the site ranking scheme being developed by the Navy for determining which sites at WPNSTA should be evaluated first. Rob noted that EPA wants both sites and SSAs which have the potential for off-site migration to be evaluated first. LANTDIV, the Activity, and State personnel agreed.

★ • Information on background concentrations of constituents for surface water and sediments may be hard to find. Rob will send us information on the Yorktown area, Jennifer will also send us information on the Virginia Fuel Farm.

- Level C data analysis and validation is appropriate to use for evaluation of SSAs and for use in the risk screening process.

- Use EPA Method 609 for analysis of 2,4-DNT and 2,6-DNT in groundwater. Use USATHAMA Method 8330 for analysis of other explosive compounds.

★ • Rob did not know the NPDES limits for explosives. He will check on these values and let us know. Rob will also check the ROD database for AWQC values for HMX and RDX.

- Jennifer noted that the Mark 46 and 48 shops at WPNSTA Yorktown should be added to the SSA list at the Activity. Information about these sites will be added to the revised SMP.

- Rob said that an OU report was not needed - this information could be included in the SMP. A discussion of the need for and designation of OUs led to the conclusion that OU designations at this time are inappropriate because not enough is known with respect to the extent of contamination at the sites and the type of remedial alternatives which may be used. Therefore, the site designations and SSAs will continue to be the terminology used. Rob will check with the terminology in the FFA to make sure that this in not in conflict with the FFA.

- EPA noted that the FFA is nearly complete and they want to send the SMP out with the FFA for public comment. Because the SMP will change, it is not possible to revise it and send it out for the public review with the FFA. However, Rob said that the current version of the SMP was fine to send out with the FFA, even though it will be modified significantly in the near future.

Note: ★ Indicates an "action item" to be completed as noted in the minutes.